

REMARKS

Reconsideration of the claims as amended above is respectfully requested in view of the following remarks.

Indefiniteness

It is believed that Applicant has addressed the matters raised by the Examiner as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention by clarifying the terms used in the claims. Support for the amendments may be found throughout the specification, particularly at paragraphs 16, 61, 73, 74, 75 and the Examples.

Rejection based on 35 U.S.C. § 103(a)

Claims 1-7, 9-12, 16 and 18 stand rejected under 35 USC §103 (a) as being unpatentable over Bajaj et al., in view of deSilva et al. Applicants respectfully traverse this rejection and request reconsideration in view of the following remarks.

Bajaj et al. discloses a method of regenerating a cotton plant after producing multiple shoots with a cytokinin. There is no disclosure, teaching or suggestion of any of the recited apical dominance inhibitors in the claims as now amended, nor do they suggest that other compounds other than cytokinins can produce multiple shoots.

deSilva et al. discloses a method of chemical pinching of azalea plants using dikegulac applied to whole plants. No suggestion, teaching or disclosure of the use of an apical dominance inhibitor such as dikegulac on an embryo in plant tissue culture is provided. The rejection is therefore improper because the cited publications provide no suggestion or motivation to combine the disparate teachings of the references, and there was no reasonable expectation of success based upon the distinct teachings of the cited references. At best the claimed invention may seem "obvious to try" but this is not the proper standard to apply in determining obviousness, nor is a finding of obviousness based on improper hindsight permissible. In deSilva, it is noted that the use of the dikegulac was to grow out additional buds from a growing azalea plant. This is significantly different from initiating adventitious meristem formation from an embryo that have only one meristem to ultimately produce multiple shoots and thereby

multiple plants. There is no suggestion in deSilva or Bajaj for the use of an apical dominance inhibitor with a plant embryo in tissue culture.

Claims 1-7, 9-13, and 15-18 stand rejected under 35 USC 103(a) as being unpatentable over Bajaj in view of George. This rejection is respectfully traversed and reconsideration requested.

Bajaj is as described above and the inclusion of George does not render the claimed invention obvious. George describes the use of apical dominance inhibitors such as dikegulac to growing plant tissue such as buds. No teaching, disclosure or suggestion is provided in George to use an apical dominance inhibitor in a tissue culture where the plant explant is an embryo, i.e. not an already growing plant tissue. It would not have been obvious to one skilled in the art to even try an apical dominance inhibitor in a media with an embryo explant in view of the literature that used an apical dominance inhibitor on growing plant tissues. Embryos have a single meristem and there was no suggestion that use of an apical dominance inhibitor could cause the embryo to form multiple adventitious meristems and from there produce multiple shoots with any reasonable expectation of success. Thus, this rejection fails to make a *prima facie* argument for obviousness and must be withdrawn.

Claims 1-2, 4-7, 9-11 and 14-18 stand rejected under 35 USC 103(a) as being unpatentable over Mohamed-Yasseen et al in view of George. This rejection is respectfully traversed. George is as described above and the addition of Mohamed-Yasseen does not render the claimed invention obvious. Mohamed-Yasseen merely teaches the regeneration of cultured soybean explants. There is no suggestion to combine it with the use of an apical dominance inhibitor. It would not have been obvious to one skilled in the art to even try an apical dominance inhibitor in a media with a soybean embryo explant in view of the literature (George) that used an apical dominance inhibitor on growing plant tissues. As described above, embryos have distinct features that distinguish them from growing plant cultures and there was no suggestion that use of an apical dominance inhibitor could cause the soybean embryo to form multiple adventitious meristems and from there produce multiple shoots with any reasonable expectation of success. Thus, this rejection fails to make a *prima facie* argument for obviousness and must be withdrawn.

Claims 19 and 20 stand rejected under 35 USC 103(a) as being unpatentable over Umbeck in view of George. This rejection is respectfully traversed. George is as described above and the addition of Umbeck does not render the claimed invention obvious. Umbeck teaches a method for transforming and regenerating cotton plants but does not suggest, disclose or teach the use of an apical dominance inhibitor in combination therewith nor the use of embryos as the desired explant. As described above, embryos have distinct features that distinguish them from growing plant cultures and there was no suggestion that use of an apical dominance inhibitor could cause a cotton embryo to form multiple adventitious meristems and from there produce multiple shoots with any reasonable expectation of success. Thus, this rejection fails to make a *prima facie* argument for obviousness and must be withdrawn.

The applicant respectfully requests reconsideration on the merits of the application as a whole. The Examiner is encouraged to call the undersigned should any further action be required for allowance.

Respectfully submitted,



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